

Article

Replaying the Past Through the Language of Legal Proximity

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Abstract

Retro-style video games often draw on the appearance, conventions, and cultural memory of earlier games. This creates a copyright question: when does reference to a shared historical style become proximity to protected expression? This article examines how modern retro-style games publicly construct their relationship with earlier copyright-protected works. It combines a comparative copyright-law framework with quantitative content analysis of 740 official Steam descriptions, equally divided between retro and modern samples. Descriptions were manually coded for five positioning strategies: Derivative, Transform, Unique, Rights, and Silence; the article also includes illustrative notes on cosine-based visual-similarity screening and AI-disclosure analysis. The findings show that retro games are especially marked by transformative rhetoric, which appears much more often in the retro sample than in the modern sample. Rights-related language is more closely associated with institutional production, paid distribution, derivative positioning, and earlier release years. The visual check indicates that inspiration-based descriptions may coincide with measurable scene-level proximity, although such scores remain preliminary and cannot establish infringement. The article concludes that retro-style games should be assessed through a graded framework of legal proximity, moving from general reference to historical style and genre vocabulary toward source-specific reconstruction of protected expressive elements.

Keywords: copyright; video games; intellectual property; IP; retro; nostalgia



Academic Editor: Patricia Easta

Received: 14 July 2026

Revised: 11 September 2026

Accepted: 21 September 2026

Published: 23 September 2026

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1. Introduction

Retro-style video games occupy an increasingly visible place in contemporary game culture, within a global market projected to generate USD 188.8 billion and reach 3.6 billion players in 2025 ([Newzoo 2025](#)). Their renewed appeal is commonly associated with nostalgia and a wider revival of recent cultural forms ([Handberg 2015](#); [Wulf et al. 2018](#); [Ipsos 2024](#)).

Game-specific studies likewise connect retro gaming with childhood memory, historical nostalgia, fan practices, and online communities ([Ballou et al. 2026](#); [Wimmer 2020](#); [Mora-Cantalops et al. 2021](#)). Retro-style games therefore participate in a broader cultural economy of revisiting and reworking earlier media, sustained through rereleases, emula-

tion, adaptations, and new hardware contexts (Coombe 1998; Zhang 2026; Fernandes 2025; Osborn et al. 2024).

Video games are a particularly important object for copyright analysis. First, video games are a relatively young category of creative works, whereas copyright protection extends for many decades, so most commercially and culturally relevant games, including many early titles, remain protected and have not yet entered the public domain. Second, a video game usually combines many protectable elements, including source code, visual images, voices, animations, characters, music, sound effects, interfaces, game engines, and other audiovisual or technical components (Shmatkov 2021). This composite structure is reflected in litigation, where courts may examine different layers of a game separately: literal elements such as code; individual non-literal elements such as images, sounds, characters, and visual assets; and dynamic non-literal elements such as gameplay experience, movement, virtual worlds, audiovisual interaction, enemies, environments, and the overall look and feel of play (Sigmon 2023).

Many new games deliberately draw on the visual and ludic language of earlier periods of game history: pixel art, 8-bit and 16-bit aesthetics, side-scrolling structures, arcade difficulty, simplified interfaces, chiptune-inspired sound, and references to classic genres such as platformers, beat 'em ups, shooters, and metroidvanias (Swalwell 2013; Folorunso et al. 2024). Digital tools intensify this issue by making reuse, recombination, enhancement, and transformation of existing works technically easier and more widely accessible (Clemons et al. 2022). The resulting copyright problem is twofold: copyright law must protect specific characters, worlds, levels, audiovisual assets, interface arrangements, and expressive environments from earlier games, while preserving access to general retro style, genre conventions, gameplay ideas, and the shared vocabulary of video game history.

This boundary is especially difficult because many similarities between retro-style games arise from common genre conventions rather than from copying protected expression. A pixelated platformer may resemble earlier platformers because it draws on a common aesthetic and mechanical tradition. At the same time, rights allocation in digital games may require tracing ownership, licensing terms, and reusable components across several layers of contribution (Kumazawa et al. 2000).

Public-facing descriptions may therefore also operate as legal and commercial signals. Their copyright relevance arises where they identify an earlier work, characterize the claimed relationship with it, or indicate authorization, licensing, ownership, or other forms of rights-based control. In digital works, reuse and licensing often require clearer communication of ownership, permitted uses, copyright holders, licensing terms, and reuse conditions. These signals become especially relevant where a work is commercially distributed, institutionally produced, or connected with reusable components and multiple layers of contribution (García and Gil 2008; Kumazawa et al. 2000; Lasota 2023). The central issue is how modern retro-style games publicly construct their proximity to earlier protected works.

A further distinction is needed between retro-style games and unofficial fan remakes or decompilations (Farrand 2012). A fan remake normally aims to reproduce enough expressive features of a specific game to be recognized as that game in updated form (Higgs 2024). This differs from the broader industry use of “remake,” where an older title may retain its narrative world or characters while its engine, mechanics, interface, and technical structure are substantially rebuilt (Neill Hoch 2020). A retro-inspired game may instead use older visual, musical, and gameplay conventions to create a new work within a shared stylistic tradition (Bosman 2023; Garda 2013). This category has a distinctly contemporary dimension: retro-style games often combine retro flair with modern, focused gameplay and level design built around strong core mechanics (Kayali and Schuh 2011). Treating both categories alike

would risk confusing homage with copying and could chill legitimate creative production in a field where innovation often proceeds through recombination, reference, and historical revival (De Filippi and Gracz 2013; Nagaraj 2018).

To address this issue, the article combines a copyright-law framework with an exploratory empirical analysis of how retro-style games are publicly positioned. The aim of the study is to identify patterns in how video games are positioned in relation to previous copyright-protected works and to determine the factors influencing such positioning. Public descriptions are treated as evidence of framing before any legal dispute arises; infringement analysis requires a separate legal, visual, audiovisual, and gameplay assessment. This framing can help distinguish between general stylistic reference, claimed inspiration, transformative self-presentation, explicit derivation, and rights-based control.

Steam descriptions are therefore treated as preliminary contextual evidence for copyright analysis. They may identify an earlier work, characterize the claimed relationship with that work, and indicate authorization, licensing, ownership, or other forms of rights-based control. Their evidentiary value lies in identifying the type and source of proximity that may require further examination under copyright doctrine.

For this article, legal proximity means the degree to which a later game is publicly and substantively positioned in relation to earlier copyright-protected game expression. The concept is used as an analytical framework before infringement analysis. It has four connected elements: discursive proximity, source specificity, expressive proximity, and rights-based control. Discursive proximity concerns the language through which a game describes its relationship with earlier works. Source specificity concerns whether the reference points to a general period, genre, or style, or to an identifiable earlier title. Expressive proximity concerns whether the later game approaches protected elements such as characters, worlds, levels, audiovisual organization, interface logic, or distinctive game-world arrangements. Rights-based control concerns whether the description uses ownership, licensing, authorization, affiliation, or reservation-of-rights language. Public descriptions cannot determine infringement, but they help identify which form of proximity is being constructed and where legal analysis should focus. These categories indicate what kind of proximity should be examined more closely: proximity to a genre, to a historical style, to a specific title, or to a protected expressive environment.

On this basis, the empirical part of the article treats public game descriptions as market-facing evidence of how copyright-relevant proximity to earlier works is communicated. The hypotheses focus on whether retro positioning is primarily expressed through transformative rhetoric, whether rights-related discourse is associated with commercial and institutional contexts, and whether derivative and transformative positioning relate differently to legal-control language.

The empirical analysis was guided by four hypotheses and one supplementary research question.

Hypothesis 1. *Retro-style games are more likely than modern games to use transformative positioning.*

Hypothesis 2. *Rights-related discourse is more likely to appear in games with stronger commercial or institutional characteristics.*

Hypothesis 3. *Derivative positioning is positively associated with rights-related discourse.*

Hypothesis 4. *Transformative positioning is expected to have a weaker relationship with rights-related discourse than derivative positioning.*

Research Question. How does rights-related discourse change over time within the retro sample?

2. Methods

This study combines a copyright-law framework with quantitative content analysis to examine how video games are positioned in relation to previous copyright-protected works. The empirical material consists of official game descriptions published on Steam. The marketplace was selected because it provides publicly available and relatively standardized descriptions prepared by developers or publishers. The findings are therefore limited to Steam-based public promotional descriptions. At the same time, Steam is the world's largest digital PC game distribution platform (Watabe et al. 2025), making it a particularly significant environment for observing commercial public positioning, although hobbyist, experimental, and independently distributed retro projects may be underrepresented.

The dataset consisted of two platform-based and discourse-based samples: a retro sample and a contrastive modern sample. The retro sample was constructed through Steam search using the keyword “retro”. This strategy was chosen because the study focuses on games that explicitly position themselves through retro aesthetics, references to earlier game forms, or association with older gaming culture. The sample therefore represents Steam games retrieved through retro self-positioning markers.

The modern sample was constructed through Steam search using the keyword “modern”. Since “modern” is less conceptually specific than “retro”, this group was used as a contrastive non-retro-oriented sample. To reduce contamination of the modern sample, the term “retro” was additionally used during manual review to identify and exclude games that contained retro-related positioning.

After both samples were collected, the two datasets were compared with each other and internally checked to remove duplicate entries. This procedure ensured that the same game was not counted more than once within either sample and that the retro and modern groups did not overlap. The final dataset consisted of 740 games: 370 retro games and 370 modern games. The equal size of the two samples was maintained to allow direct comparison between the two groups.

The sampling strategy was designed to capture games that are publicly retrievable through explicit platform-facing keywords. It therefore reflects discourse-based self-positioning within Steam descriptions, instead of the entire market population. Some games may use retro aesthetics without using the word “retro”, while some games retrieved through “modern” may use the term in a broader promotional sense. The comparison should be read as a contrast between two keyword-based public positioning samples. The modern sample therefore serves as a contrastive benchmark for public positioning rather than as a general representation of contemporary games.

The unit of analysis was the official Steam store description of each game. The analysis examined how developers and publishers linguistically position their games in relation to previous copyright-protected works.

Each description was manually coded according to a predefined coding scheme. The coding identified five communication strategies: Derivative, Transform, Unique, Rights, and Silence.

Derivative was coded where the description explicitly indicated a direct derivative relationship with an earlier game or another identifiable pre-existing work, including reproduction, unofficial continuation, use of original elements, or similar forms of source-specific dependence.

Transform was coded where the description framed the game as inspired by or transforming earlier game ideas, styles, mechanics, genres, or aesthetic traditions.

Unique was coded where the description emphasized originality, novelty or uniqueness.

Rights was coded where the description referred to copyright, ownership, licensing, authorization, reservation of rights, or other legal claims.

Silence was coded where the description contained no explicit statement concerning derivation, transformation, originality, or rights.

These categories describe forms of promotional positioning and do not themselves determine the legal status of a game, its originality, authorization, derivative character, or transformative use under copyright law.

The categories were not mutually exclusive, since one description could simultaneously acknowledge influence, claim originality, and include legal language. The only exception was Silence, which was coded only when none of the other four tactics was present. For this reason, Silence was analyzed separately and excluded from pairwise association tests between active strategies.

Manual coding was supported by a working lexical screening list that was iteratively expanded to 26 keywords, search stems, and phrases (Appendix A). These markers were used only to identify potentially relevant passages and did not determine coding outcomes. Final coding decisions were made manually and contextually. As new recurring expressions were identified, they were added to the screening list and the dataset was rechecked using the expanded list. Several iterations were conducted before final coding, reducing dependence on the initial set of search terms and the risk of missing relevant intellectual-property-related statements.

To reduce coding error, ambiguous cases were reviewed in context. To assess inter-coder agreement, a randomly selected 10% subsample of the dataset was independently coded by a second coder. The agreement rate exceeded 90%, and the remaining discrepancies were reviewed contextually before the final dataset was used for statistical analysis.

As a supplementary proof-of-concept exercise, the article examines visual similarity in five purposively selected pairs of later and earlier games. The five pairs were purposively selected as a proof-of-concept screening exercise because they were descriptively relevant and comparable official visual materials were available. They do not form a representative visual sample and are not used for statistical generalization. Its purpose was limited to identifying whether computational visual comparison may be a useful direction for future research on copyright-relevant proximity in video games. For each pair, all available official logo images and in-game visual materials were collected from official promotional materials. Because the number of available images differed across pairs, cosine similarity was calculated in Python 3.11 for the relevant image comparisons, and the resulting values were averaged to produce a pair-level similarity score. At the image-comparison level, the five scene matrices generated 528 pairwise comparisons, in addition to the separate logo-level comparisons. The comparison was limited to overall visual proximity at the scene level. This limitation follows from the composite nature of 2D game visuals, which usually combine static terrain, dynamic sprites, interface elements, framing, and staged gameplay situations (Kim et al. 2020). The present study did not conduct sprite detection and did not attempt to identify individual copied assets, copied mechanics, game rules, or infringement. The procedure complements the content analysis by testing whether textual claims of inspiration are accompanied by measurable visual proximity in selected pairs of concrete works.

Several additional variables were included in the dataset. The year of release was used to examine temporal trends. Developer type was coded as an operational proxy based on the developer-publisher structure. Games for which the developer and publisher coincided were treated as indie/self-published, while games with separate developer and publisher entries were treated as non-indie/publisher-separated. The monetization model

was coded as free or paid to assess whether commercial distribution affects the use of legal and creative positioning strategies.

As a supplementary descriptive check, the dataset was also screened for explicit disclosures of generative AI use in Steam descriptions. This variable was used only to identify whether a description mentioned AI and, where possible, whether the disclosed use concerned visual materials or sound, voice, or music. The AI-related subset was then compared descriptively with the Rights category and monetization model. Because the number of AI-related cases was small, this check was not used for hypothesis testing and no inferential claims are made on its basis.

The empirical analysis proceeded in several stages. First, descriptive statistics were used to determine the frequency of each communication strategy in the retro and modern samples. Second, temporal trends in the retro sample were examined using annual proportions and linear trendlines; statistical significance was tested through linear regression, with annual observations weighted by the number of games released in each year. Third, retro and modern games were compared using Pearson chi-square tests, with Cramér's *V* reported as a measure of effect size. Fourth, within the retro sample, chi-square tests and Cramér's *V* were used to compare indie and non-indie games, as well as free and paid games. Fifth, pairwise associations between active strategies in the retro sample were calculated using phi coefficients and significance testing. Silence was excluded from these association tests because it structurally denotes the absence of the other coded strategies. Sixth, structural shifts were examined by comparing three release periods: 2010–2014, 2015–2019, and 2020–2025. Finally, logistic regression models were used to identify factors associated with two key strategies: explicit rights statements and transformative rhetoric. The models included sample type, developer type, monetization model, and release year as predictors. The regression models were used as explanatory checks to assess whether the main descriptive relationships remained visible after controlling.

Hypothesis 1 was tested through the retro/modern comparison and the logistic regression model for Transform. Hypothesis 2 was tested through comparisons by developer-publisher structure and monetization model, and through the logistic regression model for Rights. Hypotheses 3 and 4 were tested through pairwise associations between active positioning strategies in the retro sample. The supplementary research question was examined through annual temporal trends, period comparison, and the year predictor in the regression model for Rights.

This design makes it possible to analyze intellectual property-related communication as a form of market positioning. The study therefore does not determine the legal status of individual games, but identifies patterns in how games describe their relationship with previous copyright-protected works.

3. Findings

To describe the composition of the dataset, Table 1 reports the main sample characteristics for the retro and modern groups, including sample size, release years, developer type, and monetization model.

Table 1. Sample characteristics.

Sample	Games	Years	Indie	Non-Indie	Free	Paid
Retro	370	2010–2025	63.5%	36.5%	13.2%	86.8%
Modern	370	2010–2025	61.4%	38.6%	12.7%	87.3%

The similar distributions by developer type and monetization model support the use of these samples as contrastive groups.

Table 2 presents the overall distribution of the five coded communication strategies in the retro and modern samples.

Table 2. Descriptive statistics.

Strategy	Retro	Modern
Silence	23.2%	26.8%
Derivative	18.4%	13.8%
Transform	40.0%	16.8%
Unique	28.6%	32.4%
Rights	43.2%	50.8%

Note: Percentages do not sum to 100% because the coding categories were non-exclusive; Silence was coded only when none of the other categories was present.

To examine whether the use of communication strategies changed over time within the retro sample, Table 3 reports weighted linear trend estimates for each strategy.

Table 3. Temporal trends, Retro.

Strategy	β , pp/Year	p -Value	Interpretation
Silence	0.897	0.191	no significant trend
Derivative	0.037	0.937	no significant trend
Transform	1.327	0.157	no significant trend
Unique	−0.285	0.723	no significant trend
Rights	−1.71	0.039	significant downward trend

Table 4 compares the retro and modern samples in order to identify whether the two groups differ significantly in their use of each communication strategy.

Table 4. Retro vs. Modern.

Strategy	Retro	Modern	χ^2	p -Value	Cramér's V
Silence	23.2%	26.8%	1.218	0.270	0.041
Derivative	18.4%	13.8%	2.894	0.089	0.063
Transform	40.0%	16.8%	49.174	<0.001	0.258
Unique	28.6%	32.4%	1.249	0.264	0.041
Rights	43.2%	50.8%	4.253	0.039	0.076

To test whether developer type affects copyright-related positioning within the retro sample, Table 5 compares indie and non-indie games across all five strategies.

Table 5. Indie vs. Non-indie, Retro.

Strategy	Indie	Non-Indie	χ^2	p -Value	Cramér's V
Silence	24.7%	20.7%	0.746	0.388	0.045
Derivative	14.9%	24.4%	5.214	0.022	0.119
Transform	42.6%	35.6%	1.749	0.186	0.069
Unique	26.8%	31.9%	1.067	0.302	0.054
Rights	36.2%	55.6%	13.128	<0.001	0.188

Table 6 examines whether the monetization model is associated with communication strategy by comparing free and paid games within the retro sample.

Since the active strategies could co-occur within the same description, Table 7 reports pairwise associations between Derivative, Transform, Unique, and Rights in the retro sample.

Table 8 presents a logistic regression model estimating the factors associated with the presence of rights-related discourse.

Table 6. Free vs. Paid, Retro.

Strategy	Free	Paid	χ^2	<i>p</i> -Value	Cramér's V
Silence	22.4%	23.4%	0.020	0.888	0.007
Derivative	14.3%	19.0%	0.631	0.427	0.041
Transform	38.8%	40.2%	0.035	0.851	0.01
Unique	32.7%	28.0%	0.443	0.506	0.035
Rights	28.6%	45.5%	4.954	0.026	0.116

Table 7. Pairwise associations, Retro.

Pair	ϕ	<i>p</i> -Value
Derivative–Transform	−0.046	0.381
Derivative–Unique	0.039	0.455
Derivative–Rights	0.318	<0.001
Transform–Unique	−0.017	0.742
Transform–Rights	0.067	0.199

Table 8. Logistic regression predicting rights-related discourse.

Predictor	Odds Ratio	95% CI	<i>p</i> -Value
Modern vs. Retro	1.334	0.991–1.794	0.057
Indie vs. Non-indie	0.481	0.354–0.655	<0.001
Free vs. Paid	0.601	0.379–0.952	0.030
Year, per +1 year	0.944	0.903–0.987	0.011

Table 9 presents a second logistic regression model estimating the factors associated with transformative rhetoric.

Table 9. Logistic regression predicting transformative rhetoric.

Predictor	Odds Ratio	95% CI	<i>p</i> -Value
Retro vs. Modern	3.288	2.330–4.641	<0.001
Indie vs. Non-indie	1.185	0.836–1.680	0.341
Free vs. Paid	1.083	0.662–1.771	0.750
Year, per +1 year	1.066	1.012–1.123	0.016

To check whether the retro sample changed across broader historical periods, Table 10 compares the distribution of strategies across three release periods: 2010–2014, 2015–2019, and 2020–2025.

Table 10. Structural shift, Retro.

Strategy	2010–2014	2015–2019	2020–2025	χ^2	<i>p</i> -Value	Cramér's V
Silence	7.7%	21.5%	24.5%	2.125	0.346	0.076
Derivative	15.4%	17.7%	18.7%	0.12	0.942	0.018
Transform	38.5%	31.6%	42.4%	3.003	0.223	0.09
Unique	30.8%	26.6%	29.1%	0.226	0.893	0.025
Rights	61.5%	51.9%	39.9%	5.429	0.066	0.121

Table 11 reports the computational visual-similarity results for five selected pairs of later and earlier games, using cosine similarity for logos and in-game visual materials.

Table 11. Visual similarity of selected game pairs.

Later Game	Reference Game	Logo Similarity	Group Similarity	Matrix
Super Retro GP	Virtua Racing	0.56	0.73	8 × 7
Old Retro Shooter	Doom	0.62	0.69	5 × 8
Super Retro World	Super Mario Land	0.57	0.75	6 × 5
LSD: Dream Emulator Retro	LSD: Dream Emulator from PSX	0.55	0.61	18 × 20
Vampire Survivors: Ode to Castlevania	Castlevania: Portrait of Ruin	0.47	0.72	7 × 6
Average		0.55	0.70	

A supplementary descriptive check identified explicit AI disclosures in 2% of games in both the retro and modern samples. Among 2025 releases, the proportion increased to 16% in the retro sample and 14% in the modern sample. Within this small AI-related subset, no description presented AI as an autonomous creator of the game. AI was disclosed mainly for visual materials (70.6%), while sound, voice, or music accounted for 29.4%. Rights-related statements appeared in 47.1% of AI-related descriptions. They were more frequent where AI was connected with sound, voice, or music (80%) than where it was connected with visual materials (33.3%), and more frequent in paid games (54.5%) than in free games (33.3%).

Taken together, these results support Hypothesis 1, since Transform was substantially more frequent in the retro sample and remained strongly associated with retro status in the regression model. The results also support Hypothesis 2, as Rights was more frequent in non-indie and paid retro games and both variables remained significant in the Rights regression. Hypothesis 3 was supported by the positive association between Derivative and Rights. The results were consistent with Hypothesis 4, since Transform was not significantly associated with Rights. The supplementary research question showed a significant downward temporal trend in Rights within the retro sample, although the broader period comparison indicated only a marginal structural shift.

4. Discussion

4.1. Comparative Legal Framework: Derivative Works, Transformative Use, and Fair Use

It is necessary to clarify a terminological difficulty that is especially important for retro-style games. The terms “derivative” and “transformative” may appear close in ordinary language, while copyright law gives them different meanings across jurisdictions.

In United States copyright law, a derivative work is connected with the copyright owner’s exclusive right to prepare works based on a pre-existing work. A derivative work may include recasting, transformation, adaptation, abridgment, condensation, or other modification of an earlier work¹. For video games, this issue becomes relevant where a new project uses protected expression from an earlier game, such as characters, audiovisual sequences, fictional worlds, or source-specific expressive arrangements. A game may therefore appear transformed in ordinary language while still raising derivative-work questions if it remains based on protected expression from the earlier work.

Fair use operates as a separate doctrine. In the United States, it is assessed through a multi-factor analysis that considers the purpose and character of the use, the nature of the copyrighted work, the amount and substantiality used, and the effect of the use on the potential market². Transformative use is mainly relevant under the first factor, especially where the later use adds new expression, meaning, or message³. At the same time, a different appearance, updated style, or commercial repositioning does not automatically

¹ 17 U.S.C. §§ 101, 106(2).

² 17 U.S.C. § 107.

³ Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569 (1994).

establish transformative use. Recent U.S. case law emphasizes the specific purpose of the challenged use and its market context⁴.

A comparable idea-expression boundary is relevant in both U.S. and EU copyright law: copyright protects expression, while ideas, styles, genres, methods, mechanics, and general concepts remain outside copyright protection⁵. Transformative use in U.S. law and exceptions such as parody, quotation, or pastiche in EU law operate within different doctrinal structures, yet both systems require attention to the same underlying boundary between unprotected ideas and protected expression. For retro-style games, this boundary is central because a later game may lawfully draw on earlier ideas, aesthetics, mechanics, or genre conventions, while the reproduction of a specific expressive arrangement may still raise copyright concerns.

EU copyright law relies on exclusive rights, especially reproduction and communication to the public, and on a closed list of exceptions and limitations. These include, depending on the relevant provision and national implementation, quotation, criticism or review, caricature, parody, and pastiche⁶. A use described as “transformative” in U.S. fair-use language therefore has to be assessed in the EU through the relevant exclusive right and the possible application of a specific exception. When interpreting these exceptions, courts must also preserve a fair balance between copyright protection and fundamental rights, including freedom of expression and freedom of the arts⁷.

This difference is important for retro-style games. In U.S. law, a developer may try to frame a new game as transformative by arguing that it changes the purpose, meaning, or expressive message of earlier material. In EU law, the same argument has to be translated into a different legal vocabulary. The analysis will usually focus on whether the later work uses protected expression, whether the similarity concerns only ideas, style, genre, mechanics, or conventions, and whether a specific exception such as quotation, parody, or pastiche applies. The legal vocabularies overlap in practice, while their doctrinal functions remain distinct.

The concept of pastiche is especially relevant to retro aesthetics. In EU law, pastiche may cover certain forms of creative engagement with earlier works, especially where a new work enters into a recognizable artistic or creative dialogue with existing materials and remains noticeably different. This makes pastiche potentially dialogue relevant to retro-style games, because they often evoke earlier periods, genres, or works. Its scope remains limited: a general reference to the look and feel of older games differs from the reuse of protected expression from a specific title.

The empirical categories used later in this article should therefore be read as discourse categories. “Derivative” rhetoric may signal source-specific dependence on earlier works. “Unique” rhetoric may operate as a distancing device by presenting the game as original, independent, or distinct. “Transform” may signal cultural or stylistic reworking, while “Rights” language may indicate legal caution, licensing control, or ownership claims. These categories help identify how proximity to earlier works is publicly constructed. They do not determine whether a game is legally derivative, transformative, licensed, infringing, or lawful. The case-law analysis below explains how courts draw the boundary between protected expression and shared style, genre, mechanics, or historical convention.

⁴ Andy Warhol Foundation for the Visual Arts, Inc. v. Goldsmith, 598 U.S. 508 (2023).

⁵ 17 U.S.C. § 102(b); Directive 2009/24/EC, art. 1(2); SAS Institute Inc. v. World Programming Ltd., Case C-406/10, ECLI:EU:C:2012:259.

⁶ Directive 2001/29/EC, arts. 2–5, 2001 O.J. (L 167) 10.

⁷ Charter of Fundamental Rights of the European Union, arts. 11, 13, 17(2); Deckmyn v. Vandersteen, Case C-201/13, ECLI:EU:C:2014:2132; Pelham GmbH v. Hütter, Case C-476/17, ECLI:EU:C:2019:624; Funke Medien NRW GmbH v. Bundesrepublik Deutschland, Case C-469/17, ECLI:EU:C:2019:623; Spiegel Online GmbH v. Volker Beck, Case C-516/17, ECLI:EU:C:2019:625.

4.2. Lessons from Comparative Case Law

The case law clarifies why retro-style video games create a difficult copyright problem. Copyright does not protect “retro” as an abstract style. Pixel art, side-scrolling structures, arcade difficulty, chiptune-inspired sound, simplified interfaces, and genre conventions form part of the shared vocabulary of video game history. Copyright scrutiny becomes stronger when a later game moves beyond general retro style and reproduces identifiable expressive elements of a specific earlier game, such as characters, worlds, level design, screen layout, audiovisual presentation, or other recognizable game-specific elements.

A central authority for this point is *Micro Star v. FormGen Inc.*, decided by the United States Court of Appeals for the Ninth Circuit⁸. The dispute concerned user-created MAP files for *Duke Nukem 3D*. The MAP files did not contain the original game’s graphics, music, or source assets. They instructed the game engine how to arrange the existing art library into new levels. The court treated the MAP files as derivative works because they created new audiovisual sequences and new adventures within the protected *Duke Nukem* universe. For retro-style games, the case shows that infringement risk may arise through the reconstruction of a recognizable fictional universe, level architecture, narrative environment, or world logic associated with a specific title, even where asset files are absent.

Tetris Holding, LLC v. Xio Interactive, Inc., decided by the United States District Court for the District of New Jersey⁹, reinforces this point from a different angle. The defendant’s mobile game reproduced many elements of *Tetris*. The court accepted the distinction between unprotectable rules or mechanics and protectable expression. Arranging falling blocks to complete horizontal lines belongs to the rule-set of the game. The field dimensions, the appearance and organization of the pieces, the movement and rotation of the blocks, the “next piece” display, the shadow piece, and other elements of visual presentation were treated as part of the protectable audiovisual expression of *Tetris*. The relevance for retro-style games is direct: visual simplicity and mechanical clarity do not eliminate copyright protection where a later work reproduces a specific expressive system.

Research In Motion Ltd. v. Atari Inc., decided in Ontario, Canada¹⁰, should be used with caution. The dispute concerned BlackBerry games and Atari’s earlier arcade works, but the relevant decision was procedural and did not decide whether the games infringed. Its value for this article lies in showing that even simple arcade formats can generate legal conflict over the boundary between familiar gameplay structures, genre conventions, and protectable audiovisual expression. The case therefore supports the argument that retro proximity may create litigation risk without itself providing a final copyright standard for arcade-style imitation.

The fan-remake and preservation context is illustrated by *Take-Two Interactive Software, Inc. v. Papenhoff et al.*, filed in the United States District Court for the Northern District of California¹¹. The dispute concerned the re3 and reVC projects, which reverse-engineered and modernized *Grand Theft Auto III* and *Grand Theft Auto: Vice City*. The case could have become an important precedent on fan remakes, reverse engineering, interoperability, modding, and preservation of older games. It ended without a merits decision, so its relevance is practical rather than doctrinal (Higgs 2024). It shows that right holders may tolerate fan activity, mods, or preservation-oriented projects for some time and later use DMCA takedowns and litigation when such projects become more technically ambitious, more visible, or more threatening to commercial control over legacy titles.

⁸ *Micro Star v. FormGen Inc.*, 154 F.3d 1107 (9th Cir. 1998).

⁹ *Tetris Holding, LLC v. Xio Interactive, Inc.*, 863 F. Supp. 2d 394 (D.N.J. 2012).

¹⁰ *Research In Motion Ltd. v. Atari Inc.*, 2007 CanLII 33987, 61 C.P.R. (4th) 193 (Ont. S.C.J.).

¹¹ *Take-Two Interactive Software, Inc. v. Papenhoff*, No. 3:21-cv-06831 (N.D. Cal. filed Sept. 2, 2021).

This uncertainty extends beyond fan remakes and commercial retro-style games. ROM-hacking and retro-gaming communities show how access to older games is often maintained through patching, emulation, file sharing, collecting practices, and contested distinctions between playing, preserving, and pirating unavailable or costly titles (Downing 2011; Iantorno 2019). The value of this context for the present article is that it places retro proximity within a broader legal environment that includes visual similarity, preservation practices, interoperability, software control, and access to legacy works. Retro-gaming communities depend on a wider technical ecology: users restore and modify legacy hardware, enhance video output and storage, create toolkits and replacement components, and sometimes rely on technical documentation, firmware access, or source-code availability (Christian 2022, 2025). These practices keep older games culturally and technically alive, while bringing preservation, interoperability, software control, and copyright enforcement into the same field of conflict.

The music cases provide a useful analogy for retro aesthetics because they address historical reference, perceptibility, and genre-coded reuse. In *Pelham GmbH v. Hütter*¹², the Court of Justice of the European Union considered the use of a short sound sample from Kraftwerk's *Metall auf Metall*. The CJEU held that even a very short sample may fall within the reproduction right if it remains identifiable to the ear, while a modified sample that can no longer be heard as taken from the original may fall outside that right. This approach is important for retro and retrowave aesthetics because audience recognition may form part of the aesthetic function itself. Nostalgic genres often invite listeners or players to perceive a historical reference, technological memory, or earlier cultural form (Gibson 2022; Zhang 2026).

The Rammstein dispute should be separated from *Pelham*. *NinjA Cyborg v. Rammstein*¹³ is a French copyright dispute concerning alleged plagiarism of a retrowave riff from *Sunny Road* in Rammstein's *Deutschland*. Its relevance is illustrative: it shows the difficulty of assessing similarity where the allegedly copied element is short, genre-coded, and historically referential. *Pelham* supplies the EU-law standard on recognizable sampling; *NinjA Cyborg v. Rammstein* illustrates the practical difficulty of applying originality and infringement analysis to aesthetic forms built around evocation of earlier musical and cultural sources.

Roberton v. Lewis, decided in England and Wales¹⁴, cautions against allowing copyright to monopolize tradition. In that case, the defendant relied on traditional musical materials to weaken the claim that the similarity derived from the claimant's work. The broader lesson applies to retro-style games. Similarity based on a shared historical source, genre grammar, or inherited design convention is weaker evidence of infringement than similarity traceable to a specific protected work. A side-scrolling platformer may resemble earlier platformers because it uses common genre structures. A shoot 'em up may employ enemy waves, score systems, pixel explosions, or looped stages because these are conventional elements of the form. The legal question is whether the resemblance comes from a particular protected game or from a broader public-domain, traditional, or genre-based vocabulary.

¹² *Pelham GmbH and Others v. Hütter and Schneider-Esleben*, Case C-476/17, ECLI:EU:C:2019:624, Judgment of the Court (Grand Chamber), 29 July 2019.

¹³ *Botté and Another v. Rammstein Musikverlag and Others*, Tribunal judiciaire de Paris, Ordonnance de référé, No. RG 21/52943, 29 July 2021; *Botté and Others v. Rammstein Musikverlag and Others*, Tribunal judiciaire de Paris, No. RG 24/04375, 3 July 2025.

¹⁴ *Roberton v. Lewis*, (1976) R.P.C. 169 (Ch.).

The Fontana¹⁵ and Sawkins¹⁶ lines of authority add the complementary point that traditional, common, or genre-based material can still support original authorship. In Fontana, the French Court of Cassation accepted that an artist could create an original work while respecting well-known features required by tradition. In Sawkins, the English Court of Appeal upheld copyright in modern performing editions of older musical works where the editor's corrections, additions, interpretation, and organization reflected sufficient skill and judgment. These cases matter for retro-style games because a modern game does not lose originality merely by using pixel art, 8-bit references, arcade structures, or familiar genre conventions (Zhang 2026). A new retro-style game may be original through its selection, arrangement, pacing, interface, level design, audiovisual atmosphere, and combination of inherited elements.

Taken together, these cases support a graded framework for assessing retro-style games. At the lowest-risk end are games that use general retro aesthetics, historical genre conventions, and abstract gameplay ideas. In the middle are games that imitate the look and feel of older genres while developing distinct characters, worlds, levels, interfaces, audiovisual identity, and narrative framing. At the high-risk end are games that reconstruct the expressive environment of a specific earlier title: its fictional world, level architecture, character system, screen layout, audiovisual organization, or distinctive game-world logic (Burk 2016). The decisive issue is the source of the resemblance. A reference to a general period style or shared genre tradition creates weaker copyright concern. A resemblance traceable to protected expression from an identifiable source game creates stronger infringement risk.

The cases illustrate this progression: Roberton, Fontana, and Sawkins support the permissibility of drawing on shared traditions and genre conventions; Tetris and Micro Star show stronger copyright scrutiny where similarity is traceable to source-specific expressive elements and arrangements. The intermediate level covers more specific and perceptible resemblance that still requires separation of shared stylistic or genre features from protected expression.

In practical terms, the framework can operate as an initial evidentiary map for courts and practitioners. It helps identify which forms of resemblance require closer examination and which evidentiary directions should follow, including source identification, comparison of protectable expressive elements, authorization or licensing, access, and evidence of independent creation. Movement from the middle to the high-risk end depends on the convergence of these indicators around source-specific protected expression from an identifiable earlier work.

This case-law framework provides the legal background for the empirical discussion that follows. Descriptions using terms such as "retro," "classic-inspired," "arcade-style," or "old-school" usually indicate general aesthetic positioning. Descriptions referring to source-specific rebuilding, unofficial continuation, fan status, remakes, remasters, recognizable worlds, characters, levels, or franchises may indicate a closer relationship to pre-existing protected expression. The legal meaning of retro discourse therefore depends on whether the reference remains at the level of style and genre or moves toward reconstruction of a particular work. This distinction is essential for avoiding both overprotection of video game history and underprotection of concrete expressive game worlds.

¹⁵ Fontana v. Ministère public, Cour de cassation, 13 February 1857, Dalloz 1857.1.111.

¹⁶ Hyperion Records Ltd. v. Sawkins, (2005) EWCA Civ 565, (2005) 1 W.L.R. 3281 (Court of Appeal, Civil Division, 19 May 2005).

4.3. Empirical Patterns of Legal Proximity

Against the doctrinal distinction developed in Section 4.1 and the case-law framework set out in Section 4.2, the empirical results show how retro-style games publicly construct different forms of discursive proximity to earlier works.

4.3.1. Transformative Positioning in the Retro Sample

The results show that retro-style games use a distinctive language of market positioning in which references to earlier works function as legally meaningful signals of proximity. The retro sample showed a much higher frequency of transformative rhetoric. Transform was present in 40.0% of retro games, compared with 16.8% of modern games. This difference remained highly significant in both chi-square analysis and logistic regression. In the regression model, retro status increased the odds of transformative rhetoric more than threefold, even after controlling for developer type, monetization model, and release year.

These results support Hypothesis 1 and indicate that transformative rhetoric is strongly associated with retro positioning.

This finding matters for copyright analysis because the retro sample shows a tendency to describe proximity to earlier games through cultural and stylistic continuity instead of explicit legal derivation. Developers more often rely on the language of inspiration and references to earlier ideas, mechanics, genres, or aesthetic traditions. This vocabulary keeps earlier works visible as points of reference and reduces the appearance of direct derivative dependence. In this sense, transformative rhetoric operates as a distancing strategy: developers can signal continuity with older games through ideas, styles, mechanics, genres, and aesthetic traditions, while presenting the later game outside the vocabulary of remake, reproduction, unofficial continuation, or legal dependence. Game-studies literature helps explain this strategy as an attempt to preserve a “classic feeling” through the selection, translation, or renovation of earlier game elements within a contemporary game (Arsenault 2023; Gee 2019). A similar design logic appears where retro and modern aesthetics are deliberately combined within the same contemporary game experience (Rodney et al. 2023). For copyright analysis, this remains public positioning. It may describe engagement with unprotected ideas, styles, mechanics, and conventions, and it may also coexist with the reproduction of protected expression from an identifiable earlier work.

The broader cultural context explains why this form of positioning is persuasive. Retro may refer to visual style, genre memory, and attempts to recreate older forms of play (Maté 2025). Retrogaming also operates as a culture of history, where older games return through memory, replay, collecting, emulation, commercial re-release, amateur preservation, and circular patterns of reuse that extend the cultural life of earlier game materials (Fernandes 2026; Suominen 2007). In this setting, nostalgia videogames reuse past aesthetics, design philosophies, and technical limitations to comment on or recreate earlier game forms within contemporary works (Sloan 2016). Their appeal is also linked to perceived authenticity, player satisfaction, and participation in retro-gaming communities (Chari et al. 2026). This cultural logic explains the prevalence of Transform, yet the legal question remains tied to the boundary between shared conventions and protectable expression.

4.3.2. Rights-Related Positioning and Controlled Proximity

The modern sample showed a higher frequency of rights-related statements than the retro sample (Table 4). Rights appeared in 50.8% of modern games and 43.2% of retro games. This result is noteworthy because one might expect retro-game developers to use legal language more actively in order to distance their works from infringement risk while still benefiting from the reputational value of earlier games. The effect size was small, but the difference was statistically significant in the chi-square test and marginal

in the logistic regression model. The comparison suggests that rights-related discourse reflects broader legal and market formalization more than retro-specific proximity to earlier works. Modern games may rely more often on conventional rights statements, ownership notices, licensing language, or publisher-driven legal formulations. The result challenges the intuitive expectation that retro games, because of their proximity to older protected works, would necessarily display stronger legal caution in their descriptions.

The temporal trend in the retro sample supports that interpretation (Table 3). Rights-related discourse declined significantly over time, while the remaining strategies showed no statistically significant linear trends. This suggests that newer retro games rely less on explicit rights language than earlier ones. As retro aesthetics became familiar and normalized in the game market, developers had fewer reasons to frame retro positioning through formal ownership or reservation-of-rights language. Retro increasingly operates as a general style, genre vocabulary, and cultural reference point, so proximity to earlier games is more often expressed through stylistic or transformative positioning.

This temporal decline also refines earlier explanations of copyright notices. Earlier explanations have linked such notices to incomplete understanding of copyright formalities (Yezril 2015), while others describe their persistence as UX conventions, professional markers, behavioral signals, or reputational devices with limited strict legal value (Muzychuk et al. 2025). The present results point to a more selective use of Rights: these statements remain concentrated in paid, non-indie, and derivative contexts. Developers and publishers therefore appear to use general rights language as a selective legal signal where commercial exposure, institutional production, or source-specific proximity increases the need to mark ownership, authorization, licensing conditions, or control over reuse. This suggests growing awareness of the narrow legal effect of general rights statements, together with their continuing value as markers of control, professionalism, and reputational responsibility.

The indie/non-indie comparison within the retro sample adds a production-level distinction (Table 5). Non-indie retro games were significantly more likely to include rights-related discourse, while indie games were less likely to do so. This pattern is consistent with the idea that institutionalized production environments use more formal legal and licensing language. Larger publishers or developer-publisher structures may be more likely to include ownership notices, rights reservations, or legal disclaimers because they usually have greater legal expertise and more developed compliance capacity. Indie developers may rely more heavily on creative, aesthetic, or community-oriented language and less on formal legal positioning. This finding should be read at the level of public positioning: indie games less often use description language that foregrounds ownership, authorization, licensing, or control over reuse.

The free/paid comparison points in the same direction (Table 6). Paid retro games were significantly more likely to include rights-related statements than free retro games. The effect size was modest, but the result is theoretically useful. Commercial distribution appears to increase the relevance of legal positioning. Where a game is monetized, developers and publishers may have stronger incentives to signal ownership, authorization, or control over protected elements. Free games, especially smaller or more experimental projects, may present themselves through creative or community-oriented language. Rights discourse therefore appears connected to commercialization and institutional risk management. The higher frequency of such statements in paid retro games indicates that rights-related language appears most often where monetization increases the practical relevance of ownership, authorization, and reuse boundaries. In this sense, rights discourse operates less as a universal copyright formality and more as a selective signal of control, professionalism, and reputational responsibility. Rights language turns legal control into

readable market information: ownership, authorization, licensing, reuse conditions, and reputational cues become part of how a game is publicly positioned (García and Gil 2008; Muzychuk et al. 2025).

These results support Hypothesis 2: rights-related discourse is more closely connected with commercial and institutional conditions than with retro status alone.

The pairwise association analysis adds a further layer (Table 7). The only strong and statistically significant association among active strategies in the retro sample was between Derivative and Rights. Where descriptions indicated a direct derivative relationship with an earlier game or another identifiable pre-existing work, they were also more likely to include rights-related language. This association is relevant for copyright analysis. It suggests that explicit source-specific proximity is often accompanied by legal framing. Developers who openly position their games in relation to prior works may also mark ownership, licensing, authorization, or rights boundaries. Derivative rhetoric and legal rhetoric therefore operate together as a form of controlled proximity to earlier protected works. This controlled proximity corresponds to the higher-risk zone identified in the case-law discussion, where reference to the past moves closer to source-specific expressive dependence.

This supports Hypothesis 3 and shows that source-specific proximity is more likely to be accompanied by legal-control language.

Transform was not significantly associated with Rights in the pairwise analysis. This distinction is conceptually important. Transformative rhetoric does not appear to trigger legal caution in the same way as derivative rhetoric. Developers may present a game through inspiration, modernization, revival, or stylistic continuity without adding explicit rights language. This supports a distinction between derivative positioning and transformative positioning. Derivative language points to a more direct relation with earlier works. Transformative language often functions as a broader cultural or aesthetic claim. For copyright analysis, this difference matters because references to the past do not all carry the same legal or communicative meaning.

This result is consistent with Hypothesis 4: transformative positioning operates as cultural or aesthetic framing and does not trigger rights-related language in the same way as derivative positioning.

4.3.3. Visual Proximity in Transform-Coded Cases

The supplementary visual-similarity exercise in Table 11 adds an exploratory visual layer to the interpretation of the coded positioning strategies. All selected pairs were active-positioning cases, with Silence = 0 in each case. The common coded feature across the selected pairs was Transform = 1, while Derivative, Unique, and Rights appeared only selectively. This means that the visual-similarity check primarily concerns cases in which the later game was publicly positioned through transformative or inspiration-based language. The cosine results show that these Transform-coded cases were accompanied by measurable visual proximity. Logo similarity remained moderate, ranging from 0.47 to 0.62, with an average cosine similarity of 0.55. This difference matters because visual proximity in games is not limited to logo-level or trademark-like comparison (Le Nir et al. 2026; Shmatkov et al. 2023). In-game visual materials may reveal a different axis of legal proximity, shifting the inquiry toward copyright-protected audiovisual expression, including scene composition, interface elements, spatial arrangement, and game-world presentation.

Cosine similarity is interpreted comparatively in this study, with values closer to 1 indicating greater visual proximity within the same embedding space. Scene-level similarity ranged from 0.61 to 0.75, with an average of 0.70, compared with an average logo similarity of 0.55. The higher scene-level scores may reflect a distinction between continuity

in the visual language of an earlier game and differentiation of commercial origin. Scene composition, interface structure, spatial arrangement, and gameplay presentation can preserve recognizable stylistic features, whereas logos more directly identify a distinct product and source. This pattern suggests that Transform-coded positioning may be expressed more strongly in composite gameplay visuals than in branding elements. The scores serve as comparative indicators of visual proximity and carry no independent legal meaning. The limited occurrence of Derivative and Rights further shows that measurable visual proximity may accompany descriptions that frame the relationship through inspiration or transformation.

These values should be read as preliminary screening evidence. Cosine and embedding-based measures are already used in intellectual property contexts, including trademark comparison, audio copyright detection, and AI-generated art infringement detection (Le Nir et al. 2026; Montanaro et al. 2024; Shmatkov et al. 2023; Wahab et al. 2025). For copyright, such tools can indicate technical proximity between a protected reference object and a disputed work (Montanaro et al. 2024; Wahab et al. 2025). In the present study, the cosine scores show that Transform-coded positioning was accompanied by measurable scene-level proximity. This supports the use of similarity-based tools as preliminary instruments for identifying cases that merit closer legal review, especially in disputes involving visually complex digital works. Final assessment still requires contextual analysis of protectable expression, relevant design, gameplay elements, and possible copying.

4.3.4. AI Disclosure as Platform-Mediated Legal Proximity

This subsection is supplementary and is used only to show how platform-mandated AI disclosure creates a new form of rights-related and responsibility-based positioning. A distinct challenge for legal regulation and platform governance is the increasing use of generative AI in the creation of game content, including retro-style assets such as pixel art and chiptune music. The results of our study on the Steam platform show that 2% of games in both the retro and modern samples contain disclosures regarding the use of AI. However, when only titles released in 2025 are considered, this proportion increases to 16% among retro games and 14% among contemporary games. This almost identical increase suggests that AI references in Steam descriptions are shaped primarily by platform-wide disclosure rules¹⁷ and the broader regulatory movement toward transparency. The rise in 2025 therefore appears to reflect a new disclosure environment affecting different segments of Steam in a similar way, with no clear indication that AI use functions as a retro-specific marker.

The 2025 increase may also indicate a broader change in how retro aesthetics are produced. Generative tools can reproduce visual and sonic features associated with earlier game technologies, making retro appearance less dependent on manual reconstruction of pixel art, chiptune, and similar stylistic elements. Given the small number of cases, the 16% figure should be treated as an early indication of changing production practices. For copyright analysis, this development increases the relevance of provenance, human creative contribution, and the possible use of protected source material in AI-assisted production. It may also further complicate the distinction between stylistic transformation and source-specific derivation, increasing the need for copyright law to provide clearer criteria for assessing when AI-assisted retro production remains within unprotected style and when it uses protected expression from identifiable earlier works.

¹⁷ Valve Corporation, Steamworks Development, 'AI Content on Steam', 9 January 2024, available at: <https://steamcommunity.com/groups/steamworks/announcements/detail/3862463747997849619> accessed 25 June 2026.

It is important to note that in none of the analyzed cases was AI presented as an autonomous creator of a game. Among the identified cases, AI was used predominantly for the generation of visual materials (70.6%), whereas its use for sound, voice, or music was significantly less frequent (29.4%). Rights-related statements appeared in 47.1% of descriptions mentioning AI. This combination is particularly important. Even where AI-generated output may have uncertain or limited copyright status without sufficient human creative contribution, developers continue to use the language of rights, permissions, ownership, licensing, and responsibility for content. AI disclosure therefore does not displace rights-related discourse. Instead, it frequently appears together with it.

The clearest pattern concerns the type of generated material. When AI was used for sound, voice, or music, rights-related statements appeared in 80% of cases. When AI was used for visual materials, they appeared in 33.3% of cases. This may indicate greater legal caution where AI is connected with audio, voice, or music, since these materials may involve copyright, neighboring rights, licensing, voice-related issues, musical elements, and the possible imitation of recognizable stylistic features. For retro games, this is especially relevant because chiptune, synthesized sounds, and stylized music often refer to recognizable technical and genre conventions of earlier game platforms. The data indicate that legal sensitivity arises primarily from the type of work or protected subject matter generated or modified through AI, rather than from retro aesthetics itself.

Paid games show the same tendency more clearly. Rights-related statements were more frequent in paid games, appearing in 54.5% of cases, compared with 33.3% in free games. This is consistent with the broader results of the study, where rights-related discourse appears more actively in contexts with stronger commercial or institutional significance. In the AI-related subset, this logic becomes more visible. Rights-related statements function as signals of control over sources, licensing status, and the permissibility of the materials used.

These findings should be read against the broader regulatory shift toward transparency in generative content. At the European Union level, the AI Act establishes transparency obligations concerning the marking of artificially generated or manipulated outputs in a machine-readable format and the disclosure of interaction with AI systems¹⁸. In the United States, the copyright implications of AI-generated and AI-assisted content have also become part of the current policy debate¹⁹, especially with respect to human creative contribution, the status of machine-generated outputs, and the use of protected works in AI systems. In the video game sector, the most practical manifestation of this trend is Steam's policy introduced by Valve in early 2024. It requires developers to disclose the use of AI through a dedicated content survey and distinguishes between pre-generated content created during game development and live-generated content produced during gameplay. For pre-generated content, developers must confirm that materials such as images, code, sound, or music do not contain illegal content and do not infringe third-party rights. For live-generated content, developers must describe guardrails limiting the generation of illegal outputs. Based on these answers, Steam generates a public disclosure on the game's store page.

AI disclosures on Steam mainly show that the developer has reported the use of AI and accepted responsibility for the origin and legality of the relevant content. They signal compliance with Steam's rules and attention to third-party rights, especially where the generated material may have an uncertain copyright status. The coexistence of AI

¹⁸ Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act), OJ L, 2024/1689, 12 July 2024, Article 50.

¹⁹ U.S. Copyright Office, Copyright and Artificial Intelligence, available at: <https://www.copyright.gov/ai/> accessed 25 June 2026.

disclosure and Rights is therefore relevant for interpreting rights-related language in platform descriptions. It shows that, in the context of generative AI, legal language in game descriptions increasingly moves from the classical model of author, work, and exclusive right toward a model centered on transparency, responsibility, and control over the content supply chain.

The case law on AI authorship helps clarify this point. AI-related disclosures and rights-related statements do not mean that AI is treated as an author. In the United States, *Thaler v. Perlmutter*²⁰ confirmed the requirement of human authorship. After the Supreme Court denied certiorari in March 2026, the prevailing position remains that a computer system cannot be recognized as an author under copyright law. In Europe, a comparable approach can be seen in *S. Š. v TAUBEL LEGAL, advokátní kancelář s.r.o.*²¹. The court refused to recognize copyright protection in an image created with the use of AI, reasoning that a protected work must result from the creative activity of a natural person, while the prompt itself was treated as an idea or subject matter outside copyright protection. The pending dispute in *Allen v. Perlmutter*²² further illustrates that the central issue is the degree and character of human creative control over the final result.

Accordingly, the AI-related subset should be read as an exploratory indication of how AI disclosure interacts with rights-related language on Steam. The data do not support broad generalization, but they suggest that rights-related statements are more likely to appear where AI use concerns legally sensitive content or commercially distributed games. This supports the broader interpretation of Rights as a marker of legal control, compliance, and responsibility for content.

4.3.5. Regression Results and Synthesis of Legal Proximity

The logistic regression model for Rights confirms that rights discourse is shaped by several factors at once (Table 8). Indie status, free distribution, and later release year all reduced the likelihood of Rights statements. Explicit legal language is therefore associated with a more institutional, commercial, and earlier form of positioning. The fact that modern status was only marginally significant in the regression suggests that the raw difference between retro and modern games is partly explained by these other factors. Rights discourse is better understood through production and commercialization conditions than through a simple retro/modern distinction.

The logistic regression model for Transform shows a different pattern (Table 9). Unlike Rights, Transform was strongly and independently associated with the retro sample. Indie status and free distribution did not explain the effect. Year had a positive effect, indicating that transformative rhetoric has become somewhat more likely over time across the dataset, while the retro effect remained dominant. This supports the central conclusion that transformative discourse is a core marker of retro-style positioning. Retro games distinguish themselves primarily through the language of inspiration.

The structural-shift analysis requires a cautious temporal interpretation (Table 10). When the retro sample was divided into three periods, 2010–2014, 2015–2019, and 2020–2025, no strategy showed a statistically significant structural shift at the 5% level. Rights showed only a marginal decline. The evidence therefore does not support a sharp period break. It points to a gradual tendency, especially in rights discourse. The early years also

²⁰ *Thaler v. Perlmutter*, 130 F.4th 1039 (D.C. Cir. 2025), cert. denied, *Stephen Thaler v. Shira Perlmutter*, Register of Copyrights and Director of the United States Copyright Office, No. 25–449, Supreme Court of the United States, 2 March 2026.

²¹ *S. Š. v TAUBEL LEGAL, advokátní kancelář s.r.o.*, Městský soud v Praze, judgment of 11 October 2023, case No. 10 C 13/2023.

²² *Allen v. Perlmutter*, U.S. District Court for the District of Colorado, No. 1:24-cv-02665, complaint filed 26 September 2024.

contain relatively few observations, which limits the strength of period-based conclusions. The structural-shift results should therefore be treated as supplementary support for the linear trend.

Overall, the findings show that retro-style games cannot be reduced to a simple opposition between copying and originality (Montgomery and Potts 2008). Their descriptions combine acknowledgment of influence, claims of transformation, assertions of uniqueness, and, in some cases, explicit rights language. The most distinctive feature of the retro sample is transformative rhetoric. Rights discourse is more closely connected to non-indie production, paid distribution, derivative positioning, and earlier release years. This supports the broader argument that the legal relevance of retro games is shaped by how resemblance to earlier works is publicly framed. Developers describe resemblance to earlier works in different ways, and those descriptions help define how the game is positioned in the market.

The empirical contribution lies in giving legal proximity an observable and structured form before doctrinal assessment begins. Public positioning can reveal source specificity, the claimed nature of the relationship with earlier works, and the presence of rights-based control, providing a basis for selecting the relevant copyright questions for closer analysis. In this way, the study connects marketplace evidence with the doctrinal distinction between shared style and protectable expression.

The results also have implications for copyright theory. Copyright law distinguishes between protected expression and unprotected ideas, styles, genres, and conventions (Clemons et al. 2022; Fishman 2015). Retro games operate in this difficult zone. They frequently invoke older game forms, but often through generalized aesthetic and genre references, not through explicit reproduction of specific protected expression. The prevalence of transformative rhetoric shows that developers present retro aesthetics as cultural reuse, historical revival, or creative adaptation. At the same time, promotional descriptions cannot establish the legal status of individual games. The findings should therefore be read as evidence of communicative positioning, not as evidence of legality or infringement. This caution is important in digital markets, where legal uncertainty around re-use, automated notice-and-takedown systems, and platform licensing can shape creative decisions before any court assesses infringement (Marttila and Hyypä 2014; Peukert and Windisch 2025).

The study also shows that public game descriptions can serve as useful evidence of how developers and publishers understand their relationship with the past. Steam descriptions are promotional texts shaped by market expectations, nostalgia, legal caution, and platform conventions. The retro segment uses these descriptions to create proximity to earlier game culture while maintaining claims of novelty and transformation. This makes retro-style games a valuable site for studying how copyright-relevant relationships are publicly narrated before they become legal disputes.

For copyright analysis, this approach helps relate the empirical findings to the familiar distinction between unprotected style and protected expression in retro-style video games. Building on the doctrinal framework in Section 4.1 and the case-law analysis in Section 4.2, the article proposes to assess retro games through degrees of copyright-relevant proximity: first, general reference to a historical style or genre vocabulary; second, explicit discursive proximity to earlier works through inspiration or transformation; third, source-specific expressive proximity, where a new game recreates identifiable worlds, characters, audiovisual organization, level logic, or other protected expressive elements of a particular title. This framework connects public positioning, visual proximity, copyright doctrine and empirical evidence without treating any of them as sufficient on their own.

The framework uses public discourse as a preliminary indicator of the type of relationship constructed between a new game and earlier works. General references to style,

authenticity, ideas, originality, or uniqueness indicate stylistic and creative positioning. Markers of inspiration, influence, adaptation, recreation, rebuilding, fan status, or unofficial status indicate a closer discursive relationship with earlier works and call for contextual analysis. Rights-based markers indicate legal control, clearance, affiliation, ownership, or risk management. The strongest form of legal proximity arises when a new game recreates identifiable expressive elements of a specific source game, such as characters, worlds, levels, audiovisual organization, interface logic, or recognizable game-world arrangements. The closer the relationship moves from general style to source-specific expressive reconstruction, the stronger the need for copyright scrutiny becomes.

4.4. Limitations

This study has several limitations. The empirical analysis is based on Steam descriptions and therefore captures platform-facing commercial positioning, with hobbyist, experimental, and independently distributed projects potentially underrepresented. The keyword-based sampling strategy identifies self-positioning through “retro” and “modern” and does not establish objective membership in either category. The lexical screening list was used only to flag candidate passages and was iteratively expanded and reapplied to the full dataset; nevertheless, lexical screening may not capture every potentially relevant formulation. Public descriptions provide contextual evidence of legal proximity but cannot determine infringement or the legal status of individual games. The visual-similarity analysis is based on five purposively selected pairs and is exploratory, and the AI-disclosure subset is too small for inferential analysis. The doctrinal analysis is also concentrated on U.S. and EU copyright law, which limits broader jurisdictional generalization.

5. Conclusions

Retro-style video games raise a copyright problem because they often rely on earlier game culture while presenting themselves as new works. A later game may evoke the past through style, genre, mechanics, visual memory, or cultural reference. Copyright relevance begins to increase when that proximity becomes source-specific and moves toward identifiable expressive elements of an earlier game.

The article therefore treats game marketplace descriptions as evidence of public positioning. They show how developers frame the relationship between a new game and previous works before any legal dispute arises. The retro and modern samples therefore represent keyword-based forms of public self-positioning on Steam and do not establish objective classifications of “retro-ness” or modernity. Transform, Derivative, Unique, and Rights should be read as indicators of different proximity strategies. Their role is diagnostic: they help identify where legal analysis should focus.

Silence appeared in both samples without forming a distinctive retro-specific pattern. It therefore functions as a baseline of non-positioning: some descriptions avoid explicit claims of derivation, inspiration, originality, or rights control, which makes the active strategies more analytically significant.

The novelty of the article lies in treating retro-style game descriptions as preliminary indicators of copyright-relevant proximity and in operationalizing this proximity through a graded framework. The framework connects public discourse, source specificity, expressive proximity, and rights-based control. It develops the style/expression boundary into a more specific analytical tool for retro-style games by showing how legally relevant proximity is publicly constructed before litigation. Its distinct analytical function is pre-doctrinal: it organizes these signals to identify when and where conventional copyright tests of protected expression, derivation, and infringement require closer application.

The findings show how this boundary is managed in marketplace descriptions. Retro games most often construct proximity through Transform language. Rights language is concentrated in commercial, institutional, and derivative contexts. The Derivative–Rights association marks a stronger form of controlled proximity. Transform-coded descriptions usually place the relationship with earlier games in the field of inspiration, stylistic continuity, genre memory, and aesthetic revival. This may reduce the appearance of derivative dependence, although the copyright question remains whether protected expression has been reproduced.

Rights-coded descriptions perform a different function. They mark ownership, authorization, licensing conditions, or control over reuse. Their selective appearance in commercial, institutional, and derivative contexts suggests that rights language is used where proximity is more formally managed. In this sense, Rights operates as a signal of controlled proximity.

The case-law analysis confirms the legal boundary on which the framework rests. General retro style, arcade conventions, pixel art, old-school difficulty, familiar mechanics, and genre vocabulary belong to the shared language of video game history. Copyright scrutiny becomes stronger where a later game approaches the protected expressive structure of a specific source game, including characters, worlds, levels, audiovisual organization, interface logic, or distinctive game-world arrangements.

The exploratory visual-similarity check adds a practical layer to this framework. Cosine similarity can help identify scene-level proximity that merits closer review, especially in visually complex digital works. Its value is preliminary: it can support screening, while the legal assessment still depends on protectable expression, audiovisual comparison, gameplay context, and possible copying.

The AI-disclosure check adds a platform-governance layer to the same framework. Although the AI-related subset is small, the observed pattern is consistent with the broader role of Rights in the article: rights-related language appears as a signal of control, compliance, and responsibility for content. AI disclosures may coexist with Rights where developers report generated materials and mark attention to their origin, legality, and third-party rights. This is especially relevant for audio, voice, music, and paid games, where the practical need to manage legal risk is more visible.

The resulting framework is graded. At one end are general references to historical style, genre vocabulary, and shared game culture. In the middle are descriptions that create discursive proximity through inspiration, transformation, uniqueness, or rights language; Silence marks the absence of such explicit positioning. At the strongest level are cases where a new game approaches the expressive structure of a specific source game. This graded approach helps separate ordinary use of shared game-history vocabulary from cases that require closer scrutiny of protected expressive elements in an identifiable earlier work.

Author Contributions: Conceptualization, D.S.; methodology, D.S.; software, D.S.; validation, D.S. and M.M.; formal analysis, D.S.; investigation, D.S. and K.Y.; data curation, D.S.; writing—original draft preparation, D.S. and K.Y.; writing—review and editing, D.S., K.Y., D.P., V.P. and M.M.; visualization, D.S.; supervision, D.P. and M.M. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: The raw data supporting the conclusions of this article will be made available by the authors on request.

Acknowledgments: During the preparation of this manuscript, the authors used ChatGPT, GPT-5.5 Thinking for language editing, stylistic polishing, and improving the clarity of selected passages. The tool was not used for study design, data collection, data analysis, generation of empirical results, or legal interpretation. The authors reviewed and edited the output and take full responsibility for the content of this publication.

Conflicts of Interest: The authors declare no conflicts of interest.

Appendix A. Lexical Screening List

licens/right/authoriz/property/inspir/authentic/©/generated/idea/recreat/influenced/rebuilt/remix/reproduc/based on/reminiscent/sampled/style/unique/unofficial/fan/affiliat/derivat/original/adaptation/exclusive

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